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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,629	08/30/2001	Hitoshi Ogatsu	040894-5701	6724

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EXAMINER

BURLESON, MICHAEL L

ART UNIT PAPER NUMBER

2625

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/941,629	Applicant(s) OGATSU ET AL.	
Examiner Michael Burleson	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 April 2006.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-47 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1-8, 10-44, 46 and 47 is/are allowed.
- 6) Claim(s) 9 and 45 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/03/06
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 24-26, filed 04/03/2006, with respect to the rejection(s) of claim(s) 9 and 45 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ogatsu et al. US 5719956.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

2. The information disclosure statement (IDS) were submitted on April 03, 2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogatsu et al. US 5719956 in view of Stark US 5671344.

3. Regarding claim 9, Ogatsu et al. teaches of converting CMYK to CoMoYoKo (figure 1 and column 8, lines 17-19), which reads on a color conversion coefficient preparation apparatus for preparing color conversion coefficients to convert n color values including black in a first machine-dependent color space into n color values including black in a second machine-dependent color space. Ogatsu et al. teaches of converting K value to K' value (column 6, lines 49-51), which reads on a K conversion LUT preparation section for preparing a one-dimensional lookup table for converting the value of black in the first machine-dependent color space into the values of black in the second machine-dependent color space with the characteristic of the value of black preserved.

4. Ogatsu et al. fails to teach of an n-dimensional DLUT preparation section for preparing an n-dimensional lookup table for converting the n color values in the first machine-dependent color space into the (n-1) color values except for black in the second machine-dependent color space.

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5. Stark teaches of converting n dimensional data to $n-1$ dimensional (column 5, lines 37-53), which reads on an n -dimensional DLUT preparation section for preparing an n -dimensional lookup table for converting the n color values in the first machine-dependent color space into the $(n-1)$ color values except for black in the second machine-dependent color space.

6. The conversion coefficient section and K conversion of Ogatsu et al. could have easily been modified with the method of converting n dimensional data to $n-1$ dimensional data of Stark. This modification would have been obvious to one of ordinary skill in the art at the time of the invention in order to convert four dimensional color values to three dimensional color space.

7. Regarding claim 45, Ogatsu et al. teaches of converting CMYK to CoMoYoKo (figure 1 and column 8, lines 17-19), which reads on a color conversion system for executing color conversion processing using a one-dimensional lookup table and an n -dimensional lookup table prepared in a color conversion coefficient preparation apparatus. Ogatsu et al. teaches of converting K value to K' value (column 6, lines 49-51), which reads on a K conversion LUT application section for applying the one-dimensional lookup table for converting the value of black in the first machine-dependent color space into the values of black in the second machine-dependent color space with the characteristic of the value of black preserved to the value of black that each pixel of the input color image has.

8. Ogatsu et al. fails to teach of an n -dimensional DLUT application section for applying the n -dimensional lookup table for converting the n color values in the first

machine-dependent color space into the (n-1) color values except for black in the second machine-dependent color space to n color values including black that each pixel of an input color image has.

9. Stark teaches of converting n dimensional data to n-1 dimensional (column 5, lines 37-53), which reads on an n-dimensional DLUT application section for applying the n-dimensional lookup table for converting the n color values in the first machine-dependent color space into the (n-1) color values except for black in the second machine-dependent color space to n color values including black that each pixel of an input color image has.

10. The conversion coefficient section and K conversion of Ogatsu et al. could have easily been modified with the method of converting n dimensional data to n-1 dimensional data of Stark. This modification would have been obvious to one of ordinary skill in the art at the time of the invention in order to convert four dimensional color values to three dimensional color space.

Allowable Subject Matter

11. Claims 1-8,10-44,46 and 47 allowed.

12. Regarding claims 1-8,36,39 and 44, Prior art fails to teach of a first and second TRC preparation section for preparing a color conversion coefficient for each color to convert the n color values in the first machine-dependent color space into n color values in a first adjustment-machine-dependent color space with adjusted gradation of a single color in the first machine-dependent color space.

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13. Regarding claim 12, Prior art fails to teach of an (n-1) color prediction section for predicting (n-1) color values except for black in the second machine-dependent color space from the color specification vector in the machine-independent color space predicated by the color specification value prediction section and the value of black provided by the K conversion section.

14. Regarding claim 36, Prior art fails to teach of preparing a color conversion coefficient for each color as inverse conversion to conversion of n color values in a second machine-dependent color space to n color values in a second adjustment-machine-dependent color space with adjusted gradation of a single color in the second machine-dependent color space.

Conclusion

Any inquiry concerning this communication should be directed to Michael Burleson whose telephone number is (571) 272-7460 and fax number is (571) 273-7460. The examiner can normally be reached Monday thru Friday from 8:00 a.m. – 4:30p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at (571) 272-7471

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Michael Burleson
Patent Examiner
Art Unit 2626

MB

MIb
November 13, 2005

KAWilliams

SUPERVISORY PATENT EXAMINER

**KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER**